

## Mineral Industry Surveys

## For information, contact:

Stephen M. Jasinski, Phosphate Rock Commodity Specialist U.S. Geological Survey 983 National Center Reston, VA 20192

Telephone: (703) 648-7711, Fax: (703) 648-7757

E-mail: sjasinsk@usgs.gov

Hoa P. Phamdang (Data) Telephone: (703) 648-7965 Fax: (703) 648-7975

E-mail: hphamdan@usgs.gov

Internet: http://minerals.usgs.gov/minerals

## MARKETABLE PHOSPHATE ROCK IN OCTOBER 2003

U.S. marketable phosphate rock production in October was 4% higher than in September, according to the U.S. Geological Survey (USGS). Annualized production for 2003 was estimated to be 33.8 million metric tons (Mt), which was 6% lower than in 2002. Production from January to October was 7% lower compared with the same period in 2002.

Domestic phosphate rock sold or used in October increased about 3% over that in September, to 3.04 Mt. Annualized sales or use for the year was estimated to be 35 Mt, which was slightly higher than in 2002. For the period January to October, phosphate rock sales and use were the same as in 2002. U.S. producer ending stocks for October increased slightly from those in the prior month.

Some phosphate rock import data for Morocco, the largest supplier, were suppressed by the U.S. Census Bureau data. In addition, Census trade data are not available for the current month. Based on Census figures and data from the Moroccan producer, the USGS estimates that imports of phosphate rock in 2003 have averaged 208,000 tons per month.

Domestic apparent consumption for 2003 was estimated to be 37.5 Mt, using annualized sold or used data and estimated trade data. This was slightly higher than in 2002.

Two phosphate rock mines were sold in October. In Florida, Cargill Fertilizer acquired the Wingate Creek Mine in Manatee County. The mine was formerly owned by Nu-Gulf Industries, Inc., a subsidiary of Mulberry Corporation, which filed for bankruptcy in 2000. The 3,000-hectare (ha) Wingate Creek Mine was closed in late 1999 owing to poor market conditions. Cargill will process the rock at facilities in Bartow and Green Bay, FL; the company did not announce a specific date for resuming mining, however, more than 1,800 ha will require a new mining permit. The Wingate Creek Mine is the only phosphate rock mine in the United States that uses dredge mining techniques because of the ore depth and a high water table in the coastal region (Green Markets, 2003b).

J.R. Simplot Company purchased Farmland Industries 50% share of their SF Phosphates LLC joint venture. Simplot will assume ownership of all SF assets, which include a phosphate rock mine near Vernal, UT, a phosphate fertilizer plant in Rock

Springs, WY, and 155-kilometer pipeline that is used to transport phosphate rock from the mine to the plant. Farmland had filed for Chapter 11 bankruptcy protection in 2002. The companies reached an agreement on September 26, 2003, and Simplot was awarded the property at an auction in early November (Green Markets, 2003c)

Astaris LLC, a joint venture between FMC Corp. and Solutia Inc, announced a restructuring program in early October that included the closure of its Conda, ID, purified phosphoric acid (PPA) plant that it operated in joint venture with Nu-West Industries Inc. (a subsidiary of Agrium Inc.). The PPA plant's closure was necessitated by the closure of the Astaris Green River, WY, sodium tripolyphosphate facility, which was supplied exclusively by the Conda plant. Astaris opened the PPA plant in 2001 shortly before it closed its elemental phosphorus plant in Pocatello, ID. Astaris planned to use PPA as a replacement for thermal phosphoric acid manufactured from elemental phosphorus, but increased domestic and foreign competition in the industrial phosphates sector, worldwide excess production capacity, and economic weakness contributed to the closure. In January 2003, Astaris ceased production at the Dry Valley Mine in Idaho, which provided phosphate rock for the PPA plant, because of high stocks. Astaris has not announced plans for the mine. Agrium agreed to acquire 100% ownership of the Astaris facility; however, the company will not produce PPA and will use the phosphoric acid for fertilizer manufacturing. Agrium will continue to use phosphate rock from its Rasmussen Ridge Mine in Idaho to supply the Conda operation (Green Markets, 2003a).

## **References Cited**

Green Markets, 2003a, Astaris to shutdown PPA plant; Agrium to assume ownership: Green Markets, v. 27, no. 41, October 13, p. 8-9.
Green Markets, 2003b, Cargill signs letter of intent to purchase Wingate Creek Mine: Green Markets, v. 27, no. 44, November 3, p. 1, 12.
Green Markets, 2003c, Coffeyville Resources, J. R. Simplot and JAS Marketing win major Farmland assets: Green Markets, v. 27, no. 45, November 10, p. 1, 11

TABLE 1 U.S. PHOSPHATE ROCK STATISTICS, BY  $\mathsf{REGION}^1$ 

(Thousand metric tons)

	Marketa	Marketable production		Sold and/or used			Ending stocks <sup>2</sup>		
	Florida			Florida			Florida		-
	and	Idaho		and	Idaho		and	Idaho	
	North	and	U.S.	North	and	U.S.	North	and	U.S.
Period	Carolina	Utah	total	Carolina	Utah	total	Carolina	Utah	total
2002:									
January-October	26,000	4,310	30,300	25,100	3,970	29,100	XX	XX	XX
October	2,580	450	3,030	2,530	375	2,900	6,510	1,440	7,950
November	2,530	366	2,900	2,460	502	2,960	6,590	2,210	8,810
December	2,450	362	2,810	2,390	448	2,840	6,560	2,300	8,860
January-December <sup>3</sup>	31,100	5,040	36,100	29,800	4,920	34,700	XX	XX	XX
2003:	<u></u>								
January	2,580	333	2,910	2,420	425	2,850	6,650	2,030	8,680
February	1,970	321	2,290	2,300	465	2,760	6,320	1,890	8,210
March	2,470	308	2,780	2,680	447	3,130	6,160	1,750	7,910
April	2,180	283	2,470	2,360	398	2,750	5,910	1,630	7,540
May	2,550	610	3,160	2,480	476	2,960	5,930	1,770	7,700
June	2,290	458	2,750	2,300	371	2,670	6,020	1,860	7,880
July	2,250	510	2,760	2,390	465	2,850	5,770	1,900	7,670
August	2,480	577	3,060	2,750	432	3,180	5,530	2,050	7,570
September	2,550	361	2,910	2,610	350	2,960	5,460	2,050	7,510
October	2,650	379	3,030	2,720	318	3,040	5,430	2,110	7,540
Total	24,000	4,140	28,100	25,000	4,150	29,100	XX	XX	XX

XX Not applicable.

<sup>&</sup>lt;sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Includes inventory adjustments.
<sup>3</sup>Data may not add to total shown because of revisions to monthly data.

 $\label{eq:table 2} \text{U.S. IMPORTS OF PHOSPHATE ROCK}^{1,\,2}$ 

(Thousand metric tons and thousand dollars)

Period	Quantity	Value	
2002:			
January-September	955	41,400	
September	112	4,910	
October	124	5,270	
November	86	2,370	
December	127	5,230	
January-December	1,320	54,900	
Total year <sup>3</sup>	2,700	112,000	
2003: <sup>4</sup>			
January	65	1,790	
February	131	5,180	
March	110	1,990	
April	153	5,610	
May	138	5,340	
June	82	2,090	
July	92	4,270	
August	144	5,750	
September	130	4,990	
Total	1,050	37,000	

<sup>&</sup>lt;sup>1</sup>Cost, insurance, and freight values at U.S. ports.

Source: U.S. Census Bureau; data on the majority of phosphate rock imports from Morocco were suppressed by Census.

TABLE 3 COMPARATIVE U.S. PHOSPHATE ROCK STATISTICS

(Million metric tons, unless otherwise specified)

	2001	2002	2003 <sup>e, 1</sup>
Marketable production:			
Florida and North Carolina	W	31.1	28.8
Idaho and Utah	W	5.0	5.0
Total <sup>2</sup>	31.9	36.1	33.8
Sold or used by producers:			
Florida and North Carolina	28.1	29.8	30.0
Idaho and Utah	4.7	4.9	5.0
Total <sup>2</sup>	32.8	34.7	35.0
Yearend stocks	7.5	8.9	7.5
Exports <sup>3</sup>	(4)	(4)	W
Average value per ton	W	W	W
Imports for consumption <sup>e</sup>	2.5	2.7	2.5
Average value per ton	\$49.30	\$41.45	NA
Apparent consumption <sup>e, 5</sup>	35.3	37.4	37.5

<sup>&</sup>lt;sup>e</sup>Estimated. NA Not available. W Withheld to avoid disclosing company proprietary data.

<sup>&</sup>lt;sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>3</sup>Includes an estimate for data suppressed by the U.S. Census Bureau.

<sup>&</sup>lt;sup>4</sup>Data for the current month were not available at time of publication.

<sup>&</sup>lt;sup>1</sup>Annualized data.

<sup>&</sup>lt;sup>2</sup>Data may not add to totals shown because of independent rounding.

<sup>&</sup>lt;sup>3</sup>Source: U.S. Census Bureau 2001-02, reported by producers in 2003.

<sup>&</sup>lt;sup>4</sup>Less than 1/2 unit.

<sup>&</sup>lt;sup>5</sup>Calculated as domestic sold or used plus imports minus exports.